PARENTAL SMOKING AND CHILDHOOD RESPIRATORY DISEASE/SYMPTOMS

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PARENTAL SMOKING

Perhaps no claim regarding environmental tobacco smoke (ETS) is as capable of provoking strong feelings as the charge that parents who smoke may compromise the health of their children. While the issue of parental smoking is laden with emotion, the scientific basis for the claim is difficult to interpret. None of the studies that have reported an association between parental smoking and a child's increased risk of developing respiratory infections or symptoms have actually measured exposure to ETS. Virtually all of the studies have failed to control for cross-infections in the home and other important confounding factors. Studies that have controlled for such factors have frequently reported no significant increased risk of respiratory disease in the children of smoking parents.[1-17]

The studies on parental smoking, each with a different sample size, data collection method and analysis, tend to yield factually incompatible and contrary conclusions. For instance, although certain studies and reviews have reported adverse findings,[18-42] others have observed no significant relationship between parental smoking and respiratory illness in children.[5,6,8,43-53] After a five-year study of over 400 children, for example, Dutch researchers concluded there was "no evidence" that parental smoking had an appreciable effect on respiratory symptoms in school children.[49] A similar conclusion was reached by a group of U.S. researchers, including a critic of smoking, who found "no significant relation" between parental smoking and

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respiratory symptoms in a study of nearly 400 families with 816 children in three cities.[43]

In 1988, investigators re-examined thirty studies on ETS exposures among children and evaluated the studies for their scientific validity.[54] They noted that while several studies had reported a statistically significant relationship between ETS exposure and respiratory illness in children, "most studies had significant design problems that prevent reliance on their conclusions." The authors concluded that "many questions remain, and future studies should consider important methodological standards to determine more accurately the effect of passive smoking on child health." In 1990, another group of researchers examined the existing literature on ETS and respiratory health.[55] Although critical of ETS, they concluded that "[f]urther studies of health effects are needed; such studies will require improved methods of exposure assessment, as well as better understanding of dose-response relationships."

The studies on parental smoking have relied solely on questionnaires to obtain exposure data.[55] Reliance on questionnaires casts doubt on the findings of these studies for several reasons. First, it has been noted that even "slight changes" in the way the questions were phrased could result "in substantial differences in the type of responses one obtains."[28] Secondly, one study observed that there was a significant difference in the respiratory symptoms reported depending on which

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parent completed the questionnaire.[38] It has been reported that mothers are more likely than fathers to report chronic respiratory problems in their children and that asymptomatic mothers are less likely than symptomatic mothers to report symptoms in their children.[55] It has been suggested that "[t]hese potential biases must be evaluated in epidemiologic studies."[55]

In conclusion, although a number of studies have been conducted on parental smoking and childhood respiratory health, the results of these studies are inconsistent and are limited by the methodology employed in each study. Questionnaires are not an accurate method of determining the actual exposure of ETS a child receives from his/her smoking parent. Many studies report no relationship for parental smoking, particularly when confounding factors such as diet, home dampness or cross-infection in and outside the home are considered. Childhood respiratory illness appears to be influenced by many different social, familial, and environmental factors. To isolate parental smoking as a cause is scientifically unjustified.

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